

AMENDMENTS TO THE CLAIMS

1-10. (Cancelled)

11. (Currently Amended) A wireless communication system of claim 10 comprising:
a radio module operable to communicate data between a host and at least one external device;
at least one digital module operable to process data communicated by said radio module;
a clock generator for generating first and second clock signals for use by said digital module;
a timer operable to count clock cycles of said first and second clock signals;
power management logic operable to:
control said clock generator to cause said clock generator to generate said first clock signal when said wireless communication system is operating in a first power mode and to generate said second clock signal when said wireless communication system is operating in a second power mode; and
calibrate the frequency of said clock generator while said wireless communication system is operating in said second power mode;
and
a timer management module operable to maintain a cumulative count of the number of clock cycles counted by said timer during a predetermined time interval, wherein said timer is operable to count the number of clock cycles for said first clock when said wireless communication system is operating in said first power mode and is further operable to count the number clock cycles for said second clock signal when said wireless communication system is operating in said second power mode;
wherein the number of clock cycles counted by said timer when said wireless communication system is operating in said second power mode is

converted to an equivalent number of clock cycles that would have been generated by said first clock by using an adjustment factor based on the number of cycles said first clock would generate during a single cycle of said second clock.

12. (Cancelled)

13. (Currently Amended) A wireless communication system, of
claim 12 comprising:
a radio module operable to communicate data between a host and at least one
external device;
at least one digital module operable to process data communicated by said radio
module;
a clock generator for generating first and second clock signals for use by said
digital module;
a timer operable to count clock cycles of said first and second clock signals, said
timer operable to count the number of clock cycles for said first clock
when said wireless communication system is operating in said first power
mode and said timer does not count the number of clock cycles for said
first clock signal when said wireless communication system is operating in
said second power mode;
a timer management module operable to maintain a cumulative count of the
number of clock cycles counted by said timer during a predetermined time
interval, wherein said timer management module is operable to generate
updated timing information using information provided by said power
management logic regarding the duration of the time interval that said
wireless communication system is operating in said second power mode;
and
power management logic operable to:
control said clock generator to cause said clock generator to generate said
first clock signal when said wireless communication system is

25 operating in a first power mode and to generate said second clock
26 signal when said wireless communication system is operating in a
27 second power mode; and
28 calibrate the frequency of said clock generator while said wireless
29 communication system is operating in said second power mode.

1 14-23. (Cancelled)

1 24. (Currently Amended) ~~A~~ The method of claim 23 of managing
2 power in a wireless communication system having a radio module operable to
3 communicate data between a host and at least one external device and at least one
4 digital module operable to process data communicated by said radio module, the
5 method comprising:
6 generating a high-frequency first clock signal for use by said digital module when
7 said wireless communication system is operating in a first power mode
8 and a lower frequency second clock signal for use by said digital module
9 when said wireless communication system is operating in a second power
10 mode; and
11 using power management logic to:
12 control said clock generator to cause said clock generator to generate said
13 first clock signal when said wireless communication system is
14 operating in a said first power mode and to generate said second
15 clock signal when said wireless communication system is
16 operating in said second power mode; and
17 calibrate the frequency of said clock generator while said wireless
18 communication system is operating in said second power mode
19 using a timer to count clock cycles of said first and second clock signals;
20 using said timer to count the number of clock cycles for said first clock when said
21 wireless communication system is operating in said first power mode and
22 using said timer to count the number clock cycles for said second clock
23 signal when said wireless communication system is operating in said
24 second power mode;
25 and
26 using a timer management module to maintain a cumulative count of the number
27 of clock cycles counted by said timer during a predetermined time
28 interval, wherein the number of clock cycles counted by said timer when
29 said wireless communication system is operating in said second power
30 mode is converted to an equivalent number of clock cycles that would

have been generated by said first clock by using an adjustment factor based on the number of cycles said first clock would generate during a single cycle of the said second clock.

25. (Cancelled)

26. (Currently Amended) A The method of claim 25, further of managing power in a wireless communication system having a radio module operable to communicate data between a host and at least one external device and at least one digital module operable to process data communicated by said radio module, the method comprising:
generating a high-frequency first clock signal for use by said digital module when said wireless communication system is operating in a first power mode and a lower frequency second clock signal for use by said digital module when said wireless communication system is operating in a second power mode; and
using power management logic to:
control said clock generator to cause said clock generator to generate said first clock signal when said wireless communication system is operating in a said first power mode and to generate said second clock signal when said wireless communication system is operating in said second power mode; and
calibrate the frequency of said clock generator while said wireless communication system is operating in said second power mode
using a timer to count clock cycles of said first and second clock signals, wherein said timer counts the number of clock cycles for said first clock when said wireless communication system is operating in said first power mode and said timer does not count the number of clock cycles for said first clock signal when said wireless communication system is operating in said second power mode;

25 using a timer management module to maintain a cumulative count of the number
26 of clock cycles counted by said timer during a predetermined time
27 interval; and
28 using said timer management module to generate updated timing information
29 using information provided by said power management logic regarding the
30 duration of the time interval that the wireless communication system is
31 operating in said second power mode.